

**WE CLAIM:**

1. A global positioning system (GPS) cartridge for use with a game machine having a processing system to execute a video game program and player controls operable by a player to generate video game control signals, the GPS cartridge comprising:

GPS circuitry configured to determine position based on signals received from GPS satellites; and

a connector that, in use, electrically connects the GPS cartridge to the game machine so that the position determined by the GPS circuitry is usable during execution of the video game program.

2. The GPS cartridge according to claim 1, further comprising:

a memory for storing a video game program executable by the processing system.

3. The GPS cartridge according to claim 1, wherein the game machine is a hand-held game machine.

4. The GPS cartridge according to claim 1, wherein the GPS cartridge is adapted to receive a replaceable video game program cartridge when the GPS cartridge is connected to the game machine.

5. The GPS cartridge according to claim 1, wherein the GPS cartridge is adapted to receive a read/write memory cartridge when the GPS cartridge is connected to the game machine.

6. A removable device for use with a video game apparatus including a processing system for executing a video game program and user control keys for a user to provide control signals to the processing system, the removable device comprising:

a receiver;

position determining circuitry for determining geographic position based on signals received by the receiver; and

a connector for detachably electrically connecting the position determining circuitry to the processing system of the video game apparatus.

7. The removable device according to claim 6, wherein the processing system of the video game apparatus uses the geographic position determined by the position determining circuitry during the executing of the video game program.

8. The removable device according to claim 6, wherein the position determining circuitry comprises global positioning system (GPS) circuitry.

9. The removable device according to claim 6, further comprising:  
memory storing a program executable by the processing system of the video game apparatus.

10. A removable device for use with a video game apparatus including a processing system for executing a video game program and user control keys for a user to provide control signals to the processing system, the removable device comprising:

a receiver;  
velocity determining circuitry for determining velocity based on signals received by the receiver; and  
a connector for detachably electrically connecting the velocity determining circuitry to the processing system of the video game apparatus.

11. The removable device according to claim 10, wherein the velocity determining circuitry comprises global positioning system (GPS) circuitry.

12. The removable device according to claim 10, further comprising:  
a memory storing a program executable by the processing system of the video game apparatus.

13. A game machine comprising:

a removably attached global positioning system (GPS) cartridge comprising GPS circuitry configured to determine position based on signals received from GPS satellites;  
    a user interface enabling a user to provide inputs to the game machine; and  
    a processing system operable in response to user inputs to execute a game program in accordance with the position determined by the GPS circuitry.

14. The game machine according to claim 13, wherein the game machine comprises a hand-held game machine.

15. The game machine according to claim 13, further comprising:  
    a display,  
    wherein the processing system is responsive to user inputs to cause the display to display the position determined by the GPS circuitry.

16. The game machine according to claim 13, wherein the GPS cartridge further comprises a memory for storing a video game program and the processing system is operable in response to user inputs to execute the video game program stored in the memory of the GPS cartridge.

17. A game machine comprising:  
    radio circuitry configured to transmit and receive messages via a paging system;  
    a user interface enabling a user to provide inputs to the game machine;  
    a memory for storing message credits; and  
    a processing system operable in response to user inputs to transmit messages via the paging system if sufficient message credits are stored in the memory.

18. The game machine according to claim 17, wherein the radio circuitry is provided as part of a pager cartridge that is removably attachable to the game machine.

19. The game machine according to claim 17, wherein the processing system decreases the number of message credits in the memory in accordance with sizes of the transmitted messages.
20. The game machine according to claim 17, wherein the number of message credits in the memory is increasable in response to user inputs via the user interface.
21. The game machine according to claim 20, wherein the user inputs for increasing the number of message credits in the memory comprise alphanumeric inputs.
22. The game machine according to claim 21, wherein a message based on the alphanumeric inputs is transmitted by the radio circuitry to a remote location for authentication of the alphanumeric inputs and the number of message credits in the memory is increased only if a authentication message is received by the radio circuitry from the remote location.
23. The game machine according to claim 17, further comprising:  
a display,  
wherein the processing system is operable to cause the display to display indicia indicative of the number of message credits in the memory.
24. The game machine according to claim 17, further comprising:  
a display,  
wherein the processing system is operable to cause the display to display reminder indicia when the number of message credits in the memory falls below a predetermined number of message credits.
25. The game machine according to claim 17, wherein the processing system is operable in response to user inputs to cause the display to display messages received by the radio circuitry.

26. The game machine according to claim 17, wherein the processing system is operable to change the number of message units stored in the memory in response to a message received by the radio circuitry.

27. The game machine according to claim 17, wherein the processing system is operable to change the number of message units stored in the memory in accordance with scanned data.

28. The game machine according to claim 17, wherein the processing system is operable to change the number of message units stored in the memory in accordance with data read from a magnetic stripe.

29. A video game machine comprising:  
radio circuitry configured to transmit and receive messages over a wireless communication network;  
a user interface enabling a user to provide inputs to the video game machine;  
a memory for storing message credits; and  
a processing system operable in response to user inputs to transmit messages via the wireless communication network if sufficient message credits are stored in the memory.

30. A removable device for use with a video game apparatus including a processing system for executing a video game program and user control keys for a user to provide control signals to the processing system, the removable device comprising:

an electrical connector that detachably electrically connects the removable device to the video game system;  
two-way wireless radio frequency communication circuitry for communicating over a wireless communication network; and  
a memory including a first memory portion for storing instructions for performing wireless operations using the two-way wireless radio frequency communication circuitry and a second memory portion for storing instructions for a video game executable by the processing system of the video game system.

31. A video game apparatus comprising:  
radio frequency communication circuitry for transmitting and receiving messages over a wireless communication network;  
storage for storing game-related activation data included in received messages; and  
a processing system for executing a video game program, the video game program including embedded game features that are activated by the game-related activation data stored in the storage.

32. The video game apparatus according to claim 31, wherein the processing system is embodied in a hand-held unit, and the radio frequency communication circuitry and the storage are embodied in a device that is detachably connectable to the hand-held unit.

33. The video game apparatus according to claim 31, wherein the game-related activation data comprises game character activation data for activating video game characters.

34. The video game apparatus according to claim 31, wherein the game-related activation data comprises collectible activation data for activating video game collectibles.

35. The video game apparatus according to claim 31, wherein the game-related activation data comprises game level activation data for activating additional video game levels.

36. A video game apparatus comprising:  
radio frequency communication circuitry for transmitting and receiving messages over a wireless communication network;  
storage for storing video game intervention data included in received messages; and  
a processing system for executing a video game program for a video game, wherein video game interventions are provided based on the video game intervention data stored in the storage.

37. The video game apparatus according to claim 36, wherein the message including the video game intervention data is communicated from another video game apparatus.

38. The video game apparatus according to claim 36, wherein the video game intervention data comprises video game elements solicited by a player playing the video game.

39. The video game apparatus according to claim 36, wherein the video game intervention data comprises video game elements unsolicited by a player playing the video game.

40. The video game apparatus according to claim 36, wherein the video game program includes a limit on the number of video game interventions during the playing of the video game.

41. The video game apparatus according to claim 36, wherein the message including the video game intervention data is responsive to a background message transmitted by the video game apparatus during the playing of the video game.

42. The video game apparatus according to claim 41, wherein the video game program permits the setting of a limit on the number of background messages transmitted during the playing of the game.

43. A hand-held game machine for playing a video game, comprising:  
a display;  
radio frequency communication circuitry for transmitting and receiving messages over a wireless communication network; and  
a processing system for executing a video game program that generates game displays on the display, wherein the video game program includes instructions for automatically transmitting game player identification information over the wireless communication network.

44. A hand-held game machine for playing a video game, comprising:  
a display;  
radio frequency communication circuitry for transmitting and receiving messages over a wireless communication network; and

a processing system for executing a video game program and for controlling the communication circuitry to communicate one or both of sound and visual data over the wireless communication network.

45. The hand-held game machine according to claim 44, wherein the communicated one or both of sound and visual data comprises one or both of compressed sound and visual data.

46. A hand-held game machine, comprising:

a display;

radio frequency communication circuitry for transmitting and receiving messages over a wireless communication network; and

a processing system for executing a video game program, wherein the processing system is responsive to a received message for disabling the radio frequency communication circuitry.

47. An accessory device for detachable connection to a video game machine comprising:

wireless communication circuitry; and

a connector for connecting to the video game machine,

wherein the wireless communication circuitry is operative to at least receive wireless communications even when the accessory device is detached from the video game machine.

48. The accessory device according to claim 47, further comprising:

storage for storing the wireless communications received when the accessory device is detached from the video game machine.

49. The accessory device according to claim 47, further comprising:

a notification circuit for providing notifications when wireless communications are received.